

Claims:

- Sub B1*
1. A vehicle guidance apparatus for guiding an agricultural vehicle over a paddock along a number of paths, the paths being offset from each other by a predetermined distance, said vehicle including steering means, said apparatus including:
 - e) position determining means arranged to generate vehicle position data;
 - f) data entry means facilitating entry of an initial path by an operator and a desired offset distance between paths;
 - g) processing means coupled to said position determining means and operatively arranged to generate said paths based on said initial path, said processing means generating a guidance signal indicative of errors in the position of the vehicle relative to one of said paths;
 - h) guidance means coupled to said microprocessor and arranged to aid in guiding said vehicle thereby reducing said errors.
 2. An apparatus according to claim 1, wherein said microprocessor is further operatively arranged to provide an indication of the direction of said vehicle relative to a path closest to said vehicle.
 3. An apparatus according to claim 1, wherein said paths are straight parallel lines.
 4. An apparatus according to claim 1, wherein said paths are concentric polygons
 5. An apparatus according to claim 1, wherein said position determining means includes a satellite based geographical positioning system receiver and a radio modem operatively receiving positional correction factor data.

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6. An apparatus according to claim 1, wherein said guidance means comprises a human interface means for converting said guidance signal to a format indicating said error to a human operator of said vehicle.
7. An apparatus according to claim 1, wherein said guidance means comprises a controllable steering means coupled to said processing means and arranged to steer said vehicle in a direction reducing said error.
8. An apparatus according to claim 7, wherein said position determining means includes relative position determining means mountable to said vehicle, said relative position determining means generating positional data signals indicative of the position of said vehicle, said microprocessor being responsive to said positional data signals.
9. An apparatus according to claim 8, wherein said relative position determining means comprises a number of accelerometers.
10. An apparatus according to ^{claim 7} ~~either claim 7 or claim 8~~, wherein said controllable steering means includes at least one solenoid mechanically coupled to said steering means, said solenoid responsive to said guidance signal.
11. An apparatus according to claim 10, further including steerage feedback sensors operative to generate steerage feedback signals indicative of orientation of said steerable wheels or tracks, said microprocessor being responsive to said steerage feedback signals.
12. An apparatus according to claim 11, wherein said steerage feedback sensors comprise Hall effect devices.

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